

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

#4
RECEIVED

JUL 11 2002

Application of: Paul CLOOS et al.

Serial No.: 10/075,372

Group Art Unit: 1614

Filed: February 15, 2002

Examiner: Unassigned

TECH CENTER 1600/2900

For: DETECTION OF ISOMERISED
EPITOPES IN AUTOIMMUNE
DISEASES

Attorney Docket No.: 8969-032

INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:


Pursuant to Applicants' duty of disclosure, enclosed are copies of eighty-six (86) references for the Examiner's review and consideration. These references (AA-DH) are listed in alphabetical or chronological order on the enclosed Form PTO-1449.

Applicants request that the Examiner review the references identified on the attached PTO Form 1449, and that they be made of record in the file history of the above-identified application.

No fee is believed to be due for this submission as it is being submitted prior to a first Office Action on the merits in this case. Should any fee be required, please charge such fee to Pennie & Edmonds LLP Deposit Account No. 16-1150.

Respectfully submitted,

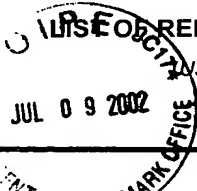
Date: July 9, 2002


For: Max Bachrach
Paul J. Zegger

(Reg. No. 45,479)
(Reg. No. 33,821)

PENNIE & EDMONDS LLP
1667 K Street, N.W.
Washington, DC 20006
(202) 496-4400

Enclosures

 <p>REFERENCES CITED BY APPLICANT (Use several sheets if necessary)</p>				ATTY. DOCKET NO.		APPLICATION NO.	
				8969-032-999		10/075,372	
				APPLICANT			
				Paul CLOOS <i>et al.</i>			
FILING DATE				GROUP			
February 15, 2002				To be Assigned			
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME				
FOREIGN PATENT DOCUMENTS							
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS.	SUBCLASS	TRANSLATION	
						YES	NO
	AA	WO 98/08098	12/08/97	PCT			
	AB	WO 97/46251	06/06/97	PCT			
	AC	WO 96/12797	05/02/96	PCT			
OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)							
AD	Aanstoot, Henk-Jan <i>et al.</i> , "Identification and Characterization of Glima 38, a Glucosylated Islet Cell Membrane Antigen, Which Together with GAD and IA2 Marks the Early Phases of Autoimmune Response In Type 1 Diabetes", <i>J. Clin. Invest.</i> , Vol. 97, Number 12, 06/1996, pp. 2772-2783.						
AE	Abel, L.C.J. <i>et al.</i> , "Molecular mimicry between cardiac myosin and Trypanosoma cruzi antigen B13: identification of a B13-driven human T cell clone that recognizes cardiac myosin", <i>Brazilian Journal of Medical and Biological Research</i> , 1997, 30, pp. 1305-1308.						
AF	Adelmann, M. <i>et al.</i> , "The N-terminal domain of the myelin oligodendrocyte glycoprotein (MOG) induces acute demyelinating experimental autoimmune encephalomyelitis in the Lewis rat", <i>Journal of Neuroimmunology</i> , 1995, pp. 17-27.						
AG	Atassi, M. Zouhair <i>et al.</i> , "Autoimmune Responses Against Acetylcholine Receptor: T and B Cell Collaboration and Manipulation by Synthetic Peptides", <i>Critical Reviews in Immunology</i> , 1997, 17, pp. 481-495.						
AH	Baekkeskov, Steinunn <i>et al.</i> , "Autoantibodies in newly diagnosed diabetic children immunoprecipitate human pancreatic islet cell proteins", <i>Nature</i> , Vol. 298, July 8, 1982, pp. 167-169.						
AI	Baekkeskov, Steinunn <i>et al.</i> , "Identification of the 64K autoantigen in insulin-dependent diabetes as the GABA-synthesizing enzyme glutamic acid decarboxylase", <i>Nature</i> , Vol. 347, No. 6289, September 13, 1990, pp. 151-156.						
AJ	Bach-Elias, M. <i>et al.</i> , "Presence of autoantibodies against small nuclear ribonucleoprotein epitopes in Chagas' patients' sera", <i>Parasitol Res</i> , 1998, 84, pp. 796-799.						
AK	Bartnes, Kristian <i>et al.</i> , "A retro-inverso analog mimicks the cognate peptide epitope of a CD4 T cell clone", <i>Eur. J. Immunol.</i> , 1997, 27, pp. 1387-1391.						
AL	Beniac, Daniel R. <i>et al.</i> , "Three-dimensional Structure of Myelin Basic Protein", <i>The Journal of Biological Chemistry</i> , Vol. 272, No. 7, February 14, 1997, pp. 4261-4268.						
AM	Benkirane, Nadia <i>et al.</i> , "Antigenicity and Immunogenicity of Modified Synthetic Peptides Containing D-Amino Acid Residues", <i>The Journal of Biological Chemistry</i> , Vol. 268, No. 35, December 15, 1993, pp. 26279-26285.						
AN	Bernstein, Robert M., "Humoral autoimmunity in systemic rheumatic disease, A review", <i>Journal of the Royal College of Physicians of London</i> , Vol. 24, January 1, 1990.						
AO	Berrih-Aknin, Sonia, "Myasthenia Gravis, A Model of Organ-Specific Autoimmune Disease", <i>Journal of Autoimmunity</i> , 1995, 8, pp. 139-143.						
AP	Bettadapura, Jayaram <i>et al.</i> , "Expression, Purification, and Encephalitogenicity of Recombinant Human Myelin Oligodendrocyte Glycoprotein", <i>Journal of Neurochemistry</i> , 1998, pp. 1593-1599.						
AQ	Bonagura, Vincent R. <i>et al.</i> , "Mapping Studies Reveal Unique Epitopes on IgG Recognized By Rheumatoid Arthritis-Derived Monoclonal Rheumatoid Factors", <i>The Journal of Immunology</i> , Vol. 151, No. 7, October 1, 1993, pp. 3840-3852.						

AR	Bonde, Martin <i>et al.</i> , "Immunoassay for Quantifying Type I Collagen Degradation Products in Urine Evaluated", <i>Clin. Chem.</i> , 1994, pp. 2022-2025.
AS	Bonifacio, Ezio <i>et al.</i> , "Identification of Protein Tyrosine Phosphatase-Like IA2 (Islet Cell Antigen 512) as the Insulin-Dependent Diabetes-Related 37/40K Autoantigen and a Target of Islet-Cell Antibodies", <i>The American Association of Immunologists</i> , 1995, pp. 5419-5426.
AT	Carson, Dennis A., "Rheumatoid Factor", pp. 155-163.
AU	Chen, K-R. <i>et al.</i> , "Coexistence of psoriasis and an unusual IgG-mediated subepidermal bullous dermatosis: identification of a novel 200-kDa lower lamina lucida target antigen", <i>British Journal of Dermatology</i> , 1996, 134, pp. 340-346.
AV	Chen, Pojen P. <i>et al.</i> , "Rheumatoid Factor", <i>Rheumatic Disease Clinics of North America</i> , Vol. 13, No. 3, December 1987, pp. 545-568.
AW	Clarke, Steven, "Propensity for spontaneous succinimide formation from aspartyl and asparaginyl residues in cellular proteins", <i>Int. J. Peptide Protein Res.</i> , Vol. 30, 1987, pp. 808-821.
AX	Cooke, A., "Mechanisms of Autoimmunity", <i>Diabetic Medicine</i> , 1988, 5, pp. 782-788.
AY	Dean, B.M. <i>et al.</i> , "Insulin autoantibodies in the pre-diabetic period: Correlation with islet cell antibodies and development of diabetes", <i>Diabetologia</i> , March 6, 1986, pp. 339-342.
AZ	De Vries, Helga E. <i>et al.</i> , "The Blood-Brain Barrier in Neuroinflammatory Diseases", <i>Pharmacological Reviews</i> , 1997, Vol. 49, No. 2, pp. 143-155.
BA	Dieterich, Walburga <i>et al.</i> , "Identification of tissue transglutaminase as the autoantigen of celiac disease", <i>Nature Medicine</i> , Vol. 3, No. 7, 1997, pp. 797-801.
BB	Dieterich, Walburga <i>et al.</i> , "Autoantibodies to Tissue Transglutaminase as Predictors of Celiac Disease", <i>Gastroenterology</i> , 1998, 115, pp. 1317-1321.
BC	Fledelius, Christian <i>et al.</i> , "Characterization of Urinary Degradation Products Derived from Type I Collagen", <i>The Journal of Biological Chemistry</i> , Vol. 272, No. 15, 1997, pp. 9755-9763.
BD	Frank, Ronald, "Spot Synthesis: An Easy Technique for the Positionally Addressable, Parallel Chemical Synthesis on a Membrane Support", <i>Tetrahedron</i> , Vol. 48, No. 42, 1992, pp. 9217-9232.
BE	Galletti, P. <i>et al.</i> , "Protein damage and methylation-mediated repair in the erythrocyte", <i>Biochem J.</i> , 1995, pp. 313-325.
BF	Geiger, Terrence <i>et al.</i> , "Deamidation, Isomerization, and Racemization as Asparaginyl and Aspartyl Residues in Peptides", <i>The Journal of Biological Chemistry</i> , 1987, Vol. 262, No. 2, pp. 785-794.
BG	Glant, T.T. <i>et al.</i> , "Mapping of Arthritogenic/Autoimmune Epitopes of Cartilage Aggrecans in Proteoglycan-Induced Arthritis", <i>Scand J. Rheumatol</i> , 1995, 24 (Suppl. 101), pp. 43-49.
BH	Glass, E.J. <i>et al.</i> , "Cellular Immunity in Cattle", <i>Weir's Handbook of Experimental Immunology</i> , Fifth Ed., Vol. III, pp. 143.1-143.6.
BI	Goin, Juan Carlos <i>et al.</i> , "Interaction of human chagasic IgG with the second extracellular loop of the human heart muscarinic acetylcholine receptor: functional and pathological implications", <i>The FASEB Journal</i> , Vol. 11, 1997, pp. 77-83.
BJ	Görsuch, A.N. <i>et al.</i> , "Evidence for a Long Prediabetic Period in Type I (Insulin-Dependent) Diabetes Mellitus", <i>The Lancet</i> , 1981, pp. 1363-1365.
BK	Gottlieb, Scott L. <i>et al.</i> , "Response of psoriasis to a lymphocyte-selective toxin (DAB389IL-2) suggests a primary immune, but not keratinocyte, pathogenic basis", <i>Nature Medicine</i> , Vol. 1, No. 5, 1995, pp. 442-447.
BL	Harris, Edward D. Jr., "Etiology and Pathogenesis of Rheumatoid Arthritis", <i>Rheumatoid Arthritis</i> , Section VI, Chapter 51, pp. 833-873.
BM	Ichikawa, Motoki <i>et al.</i> , "Analysis of the Fine B Cell Specificity During the Chronic/Relapsing Course of a Multiple Sclerosis-Like Disease in Lewis Rats Injected with the Encephalitogenic Myelin Oligodendrocyte Glycoprotein Peptide 35-551", <i>The American Association of Immunologists</i> , 1996, pp. 919-926.
BN	Inman, Robert D. <i>et al.</i> , "Immunologic and Clinical Aspects of Immune Complex Disease", <i>The American Journal of Medicine</i> , 1981, Vol. 70, pp. 1097-1106.
BO	Janeway <i>et al.</i> , "The Induction, Measurement, and Manipulation of the Immune Response", <i>Immunobiology - The Immune System in Health and Disease</i> , pp. 2:26-2:34.

RECEIVED

JUL 11 2002

TECH CENTER 16002900



BP	Johnson, P.M. <i>et al.</i> , "Rheumatoid Factor: It's Nature, Specificity, and Production in Rheumatoid Arthritis", <i>Clinical Immunology and Immunopathology</i> 6, 1976, pp. 414-430.
BQ	Johnson, P.M. <i>et al.</i> , "Differences in serum IgG structure in health and rheumatoid disease - Circular dichroism studies", <i>Ann. Rheum. Dis.</i> , 1974, 33, pp. 366-370.
BR	Johnson, P.M. <i>et al.</i> , "Antiglobulin Production To Altered IgG in Rheumatoid Arthritis", <i>The Lancet</i> , 1975, pp. 611-614.
BS	Jónsson, Thorbjörn <i>et al.</i> , "Is measurement of rheumatoid factor isotypes clinically useful?", <i>Annals of the Rheumatic Diseases</i> , 1993, 52, pp. 161-164.
BT	Kalsi, J. <i>et al.</i> , "Rheumatoid Factor: Primary or Secondary Event in the Pathogenesis of RA?", <i>Int. Arch Allergy Immunol.</i> , 1993, 102, pp. 209-215.
BU	Kerlero de Rosbo, N. <i>et al.</i> , "Reactivity to Myelin Antigens in Multiple Sclerosis", <i>J. Clin Invest.</i> , Vol. 92, 1993, pp. 2602-2608.
BV	Kerlero de Rosbo, N. <i>et al.</i> , "T-cell Responses to Myelin Antigens in Multiple Sclerosis; Relevance of the Predominant Autoimmune Reactivity to Myelin Oligodendrocyte Glycoprotein", <i>Journal of Autoimmunity</i> , 1998, 11, pps. 287-299.
BW	Kramer, Achim <i>et al.</i> , "Combinatorial Cellulose-Bound Peptide Libraries: Screening Tools for the Identification of Peptides that Bind Ligands with Predefined Specificity", <i>Methods: A Companion to Methods in Enzymology</i> 6, 1994, pp. 388-395.
BX	Li, Qing <i>et al.</i> , "Autoantigens in Insulin-Dependent Diabetes Mellitus: Molecular Cloning and Characterization of Human IA-2 β ", <i>Proceedings of the Association of American Physicians</i> , Vol. 109, No. 4, pp. 429-439.
BY	Linnington, Christopher <i>et al.</i> , "A Novel Myelin-Associated Glycoprotein Defined by a Mouse Monoclonal Antibody", <i>Journal of Neuroimmunology</i> , 6, 1984, pp. 387-396.
BZ	Linnington, Christopher <i>et al.</i> , "T cells specific for the myelin oligodendrocyte glycoprotein mediate an unusual autoimmune inflammatory response in the central nervous system", <i>Eur. J. Immunol.</i> , 1993, 23, pp. 1364-1372.
CA	Lu, Jia <i>et al.</i> , "Identification of a second transmembrane protein tyrosine phosphate, IA-2 β , as an autoantigen in insulin-dependent diabetes mellitus: Precursor of the 37-kDa tryptic fragment", <i>Prac. Natl. Acad. Sci.</i> , Vol. 93, 1996, pps. 2307-2311.
CB	Lakash, A.I. <i>et al.</i> , "Autoantigenic Properties of Deamidated Serum Albumin".
CC	Martin, R., "Immunological aspects of experimental allergic encephalomyelitis and multiple sclerosis and their application for new therapeutic strategies", <i>J. Neural Transm.</i> , 1997, 49, pp. 53-67.
CD	McInnes, Iain B. <i>et al.</i> , "Interleukin-15 mediates T cell-dependent regulation of tumor necrosis factor- α production in rheumatoid arthritis", <i>Nature Medicine</i> , Vol. 3, No. 2, 1997, pp. 181-182.
CE	Mor, Amram <i>et al.</i> , "Enter a new post-translational modification; D-amino acids in gene-encoded peptides", 1992, pp. 481-485.
CF	Munthe, E. <i>et al.</i> , "Complement-Fixing Intracellular Complexes of IgG Rheumatoid Factor in Rheumatoid Plasma Cells", <i>Stand. J. Immunol.</i> , 1972, Vol. 1, pp. 217-229.
CG	Murray, E. David <i>et al.</i> , "Synthetic Peptide Substrates for the Erythrocyte Protein Carboxyl Methyltransferase", <i>The Journal of Biological Chemistry</i> , Vol. 259, No. 17, 1984, pp. 10722-10732.
CH	Nardella, Francis A. <i>et al.</i> , "Studies on the Antigenic Determinants in the Self-Association of IgG Rheumatoid Factor", <i>J. Exp. Med.</i> , 1981, Vol. 154, pp. 112-125.
CI	Natvig, Jacob B. <i>et al.</i> , "Self-Associating IgG Rheumatoid Factor Represents a Major Response of Plasma Cells in Rheumatoid Inflammatory Tissue", <i>Annals New York Academy of Sciences</i> , Vol. 256, 1975, pp. 83-95.
CJ	Nauert, J. Brian <i>et al.</i> , "Gravin, an autoantigen recognized by serum from myasthenia gravis patients, is a kinase-scaffold protein", <i>Curr. Biol.</i> , Vol. 7, 1997, pp. 52-62.
CK	Nepom, G.T., "MHC genes in HLA-associated disease", <i>Current Opinion in Immunology</i> , 1990, 2, pp. 588-592.
CL	Noritake, Dean T., "Rheumatoid factors specific for active rheumatoid arthritis", <i>Annals of the Rheumatic Diseases</i> , 1990, 49, pp. 910-915.

	CM	Okamoto, Yoshihiro <i>et al.</i> , "Development of a dual color enzyme-linked immunospot assay for simultaneous detection of murine T helper type 1- and T helper type 2-cells", <i>Immunopharmacology</i> 39, 1998, pp. 107-116.
	CN	Palmer, J.P., "Insulin Antibodies in Insulin-Dependent Diabetics Before Insulin Treatment", <i>Science</i> , Vol. 222, 1993, pp. 1337-1339.
	CO	Parekh, R.B. <i>et al.</i> , "Association of rheumatoid arthritis and primary osteoarthritis with changes in the glycosylation pattern of total serum IgG", <i>Nature</i> , Vol. 316, 1985, pp. 452-457.
	CP	Parekh, R.B. <i>et al.</i> , "Galactosylation of IgG Associated Oligosaccharides: Reduction in Patients with Adult and Juvenile Onset Rheumatoid Arthritis and Relation to Disease Activity", <i>The Lancet</i> , 1988, pp. 966-969.
	CQ	Pilkington, C. <i>et al.</i> , "Agalactosyl IgG and Antibody Specificity in Rheumatoid Arthritis, Tuberculosis, Systemic Lupus Erythematosus and Myasthenia Gravis", <i>Autoimmunity</i> , 1995, Vol. 22, pp. 107-111.
	CR	Rawson, Arnold J. <i>et al.</i> , "Experimental Arthritis in Man and Rabbit Dependent Upon Serum Anti-Immunoglobulin Factors", pp. 189-193.
	CS	Rönnelid, Johan <i>et al.</i> , "A comparison between ELISPOT methods for the detection of cytokine producing cells; greater sensitivity and specificity using ELISA plates as compared to nitrocellulose membranes", <i>Journal of Immunological Methods</i> 200, 1997, pp. 17-26.
	CT	Schön, Michael P. <i>et al.</i> , "Murine psoriasis-like disorder induced by naive CD4 T cells", <i>Nature Medicine</i> , Vol. 3, No. 2, 1997, pp. 183-187.
	CU	Sela, M. <i>et al.</i> , "On the Role of Charge and Optical Configuration in Antigenticity", pp. 43-56.
	CV	Sela, M. <i>et al.</i> , "Different Roles of D-amino Acids in Immune Phenomena", <i>The FASEB Journal</i> , Vol. 11, 1997, pp. 449-456.
	CW	Sun, Jiabin <i>et al.</i> , "T and B Cell Responses to Myelin-Oligodendrocyte Glycoprotein in Multiple Sclerosis", <i>The Journal of Immunology</i> , Vol. 146, No. 5, 1991, pp. 1490-1495.
	CX	Svasti, J. <i>et al.</i> , "The Complete Amino Acid Sequence of a Mouse κ Light Chain", <i>Biochem J.</i> , 1972, pp. 427-444.
	CY	Todome, Yuko <i>et al.</i> , "Detection of Antibodies against Streptococcal Peptidoglycan and the Peptide Subunit (Synthetic Tetra-D-Alanyl-Bovine Serum Albumin Complex) in Rheumatic-Diseases", <i>Int. Arch Allergy Immunol.</i> , 1992, 97, pp. 301-307.
	CZ	Tomana, Milan <i>et al.</i> , "Abnormal Glycosylation of Serum IgG From Patients with Chronic Inflammatory Diseases", <i>Arthritis and Rheumatism</i> , Vol. 31, No. 3, 1988, pp. 333-338.
	DA	Tomiyama, Takami <i>et al.</i> , "Racemization of Asp23 Residue Affects the Aggregation Properties of Alzheimer Amyloid β Protein Analogues", <i>The Journal of Biological Chemistry</i> , 1994, Vol. 269, No. 14, pp. 10205-10208.
	DB	Van Noort, Johannes M. <i>et al.</i> , "The small heat-shock protein α B-crystallin as candidate autoantigen in multiple sclerosis", <i>Nature</i> , 1995, Vol. 375, pp. 798-801.
	DC	Watkins, John <i>et al.</i> , "The Catabolism of Human γ G-Globulin and Its Fragments in Man and Mouse", <i>Catabolism</i> , pp. 461-465.
	DD	Williams, R.C., Jr., "Autoimmune Mechanisms Involved in the Pathogenesis of Rheumatoid Arthritis", <i>Adv. Dent Res.</i> , 1996, pp. 47-51.
	DE	Winchester, R.J., "Characterization of IgG Complexes in Patients with Rheumatoid Arthritis", <i>Annals New York Academy of Sciences</i> , pp. 73-81.
	DF	Yoshikawa, Hiroaki <i>et al.</i> , "A 17-Mer Self-Peptide of Acetylcholine Receptor Binds to B Cell MHC Class II, Activates Helper T Cells, and Stimulates Autoantibody Production and Electrophysiologic Signs of Myasthenia Gravis", <i>The American Association of Immunologists</i> , 1997, pp. 1570-1577.
	DG	Zhang, Yiping <i>et al.</i> , "Induction of Arthritis in BALB/c Mice by Cartilage Link Protein", <i>American Journal of Pathology</i> , Vol. 153, No. 4, 1998, pp. 1283-1291.
	DH	Zisman, Einat <i>et al.</i> , "Peptide analogs to pathogenic epitopes of the human acetylcholine receptor a subunit as potential modulators of myasthenia gravis", <i>Proc. Natl. Acad. Sci.</i> , 1996, pp. 4492-4497.
EXAMINER		DATE CONSIDERED